

# V. Strategic Investments to Achieve Regional Goals

## Introduction – Overview of the Future Regional Transportation System

Although the region will be experiencing dramatic population and employment growth over the next 25 years, relatively little new funding may be expected for new highway construction or additional public transit if we continue to rely on existing revenue sources. Even with new revenues, the region will be hard pressed to maintain the existing transportation system and target its remaining resources to the best performing investments.

The region has a massive transportation infrastructure, and regional agencies are committed to improving this system to meet the challenge created by continued population growth, employment growth and economic growth. Table 5.1 and Table 5.2 summarize the increase in highway and transit network lane miles between the proposed Draft 2001 RTP and the Baseline in 2025. HOV lanes and rail will continue expanding, but the other facilities, though expanding slightly, will not keep pace with the expected 40 percent population growth.

**Table 5.1**

Plan Improvements for Highway and Arterial Network (lane miles)			
	2025 Baseline	2025 Plan	Baseline-Plan % Increase
Freeway	10,018	11,035	10%
Principal Arterial	16,457	16,457	0%
Minor Arterial	18,325	19,283	5%
Major Collectors	8,262	8,357	1%
HOV	1,194	1,235	3%

**Table 5.2**

Plan Improvements for Transit (route miles)			
	2025 Baseline	2025 Plan	Baseline-Plan % Increase
Local Bus	7,247	7,247	0%
Express Bus	3,611	3,825	6%
Urban Rail	210	257	22%
MetroLink	1,693	1,816	7%

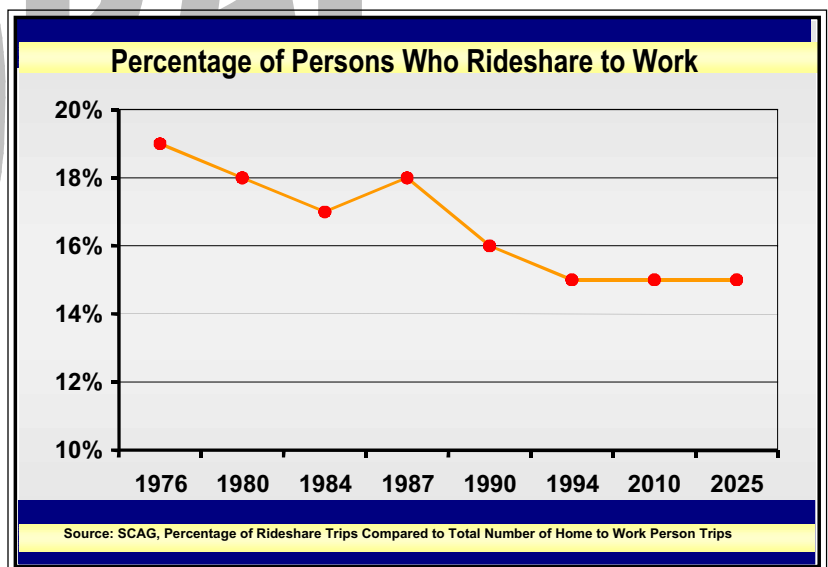
With the major congestion and air quality problems projected, it is critical that the \$29.4 billion identified for new projects in the Regional Checkbook (assuming the availability of new revenues) be spent on those that perform best. Exhibits 5.1 and 5.4 graphically indicate the levels of congestion that the region experiences today and estimates of what the region may face in the year 2025.

A comparison of the 1997 Baseyear map (Exhibit 5.1) with the 2025 Baseline map (Exhibit 5.4) tells the following story:

- In 1997, 12 percent of the total freeway system was extremely congested during the peak hour. By 2025, estimates are that 26 percent will be extremely congested with speeds of 16 miles per hour or less during the peak hour.
- In 1997, 17 percent of the average driver's mileage was spent driving in "stop and go" congested conditions. In 2025, based upon projections, that time will increase to 32 percent.
- Overall, average peak hour speeds on the freeway system will have declined from 27 miles per hour in 1997 to only 16 miles per hour in 2025.

Both HOV lanes and transit will play an important role in the future of the regional transportation system, but both of these critical elements face continuing challenges. Although lane miles for HOV have and will continue to increase (by over 100 percent), the percentage of people who rideshare to work appear to have remained flat at the 1990 level (See Figure 5.1). While the HOV lanes are utilized at 60 to 95 percent of capacity during peak periods, they are primarily being used by two-person cars, some three-person vehicles and some larger vehicles. Given the significant financial investment planned for HOV projects, it is important to assure that there is maximum use of HOV lanes by carpools and by vans and buses that can efficiently and effectively move larger numbers of people.

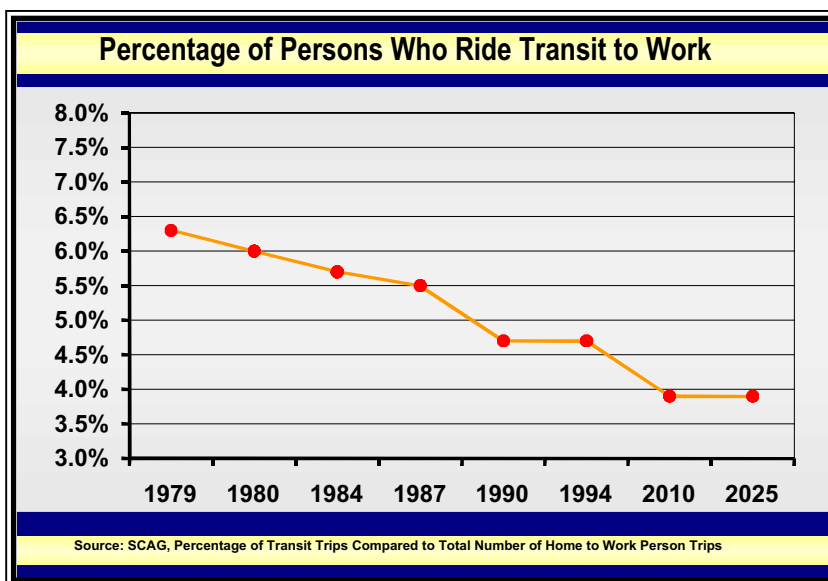
Figure 5.1



Transit ridership has been in decline for a number of years. While the introduction of new rail facilities has somewhat boosted transit use, ridership still has not reached the peak levels experienced in 1984. In a study of the Los Angeles County Metropolitan Transportation Authority (LACMTA), SCAG found that 20 percent of the MTA bus lines carry 60 percent of the total ridership. At the same time, the study showed 20 percent of the lowest performing transit lines carry only 10 percent of the trips. Use of these low-performing bus lines raises the question of whether they are the most cost-effective way of providing transportation services. Is there a more efficient and less expensive

way of providing transportation for people who rely on public transit but are now contending with a service that may be infrequent and inconvenient? Given these challenges, the region needs to find ways to improve service and meet its mobility and air quality goals.

**Figure 5.2**



## Transportation System Setting

The Metropolitan Transportation System (MTS), which consists of existing multi-modal facilities having regional and national significance, is the backbone of our regional transportation system. The MTS can be broadly categorized into roadway network, transit network, and the goods movement network. The MTS roadways include freeways, regionally significant state highways and arterials, as well as currently approved congestion management plans. The MTS transit component includes commuter rail network, inter-city rail system, and the urban rail system, including the light rails and the subway. The goods movement component of MTS includes rail freight corridors and major truck routes using the freeways and regionally significant state highways and arterials. The primary purpose of MTS is to distinguish the locally important facilities from those strategically significant at the regional and national level. There is a federal requirement to develop long-range plans that emphasize facilities for serving regional and national functions. Such differentiation clarifies the issues so that the concepts can be directly applied to planning and policy issues having inter-county, interstate, and international implications.

In addition to the components identified under the MTS network, our regional transportation system includes minor arterials, major collectors in the roadway category, fixed route transit and other para-transit system in the transit category, system of airports, seaports, and non-motorized transportation network which includes bikeways and pedestrian walkways. The following is a description of the current state of the various components of our regional transportation system.

### Highways and Arterials

Regional and local roads are an integral part of the region's infrastructure. The vast majority of trips rely on the highway network, either for automobiles, buses, vanpools, trucks or in many cases even bikes. In fact, 99 percent of all trips including trips on buses, occur on the highway and arterial network. The regional and local highway system faces mounting congestion which affects personal mobility, freight movement and air quality. The preservation, management and selective expansion of this system are crucial to the region's economic vitality and the quality of life for the region's residents.

In the current system, there are over 9,000 lane miles of freeway and High-Occupancy Vehicle (HOV) lanes linking the region. Additionally, there are 32,600 lane miles of major and minor arterials. These roadways are an integral part of the transportation system, often acting as alternative routes to freeway driving. (See Table 5.3, which summarizes the key components of the region's Highway and Arterial Network.)

**Table 5.3**

<b>Highway and Arterial Network</b> (Lane Miles)	
<b>Facility</b>	<b>1997</b>
Freeway	8,906
Principal Arterial	14,998
Minor Arterial	17,605
Major Collectors	8,262
HOV	582

Currently, there are approximately 580 lane miles of completed HOV system in the region. Most of the HOV system is open to vehicles with two or more occupants. The exceptions are the HOV lanes on the I-10 (El Monte Busway), which requires vehicle occupancy of three or more persons during peak periods. When the proposed plan is fully implemented, the regional HOV system will have about 1200 lane miles of HOV facility.

DRAFT





## 1997 Base Year Freeway Congestion

- Port
- Port of Entry
- Airport / Potential Airport Site

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### Congestion Delay (AM Peak Period)

- 0.0% - 25%
- 25% - 50%
- 50% - 75%
- 75% - 100%
- MTS

11/15/98

## Exhibit 5.1



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In recent years a number of toll roads have been added to the transportation system mix. All of these new toll roads are privately funded:

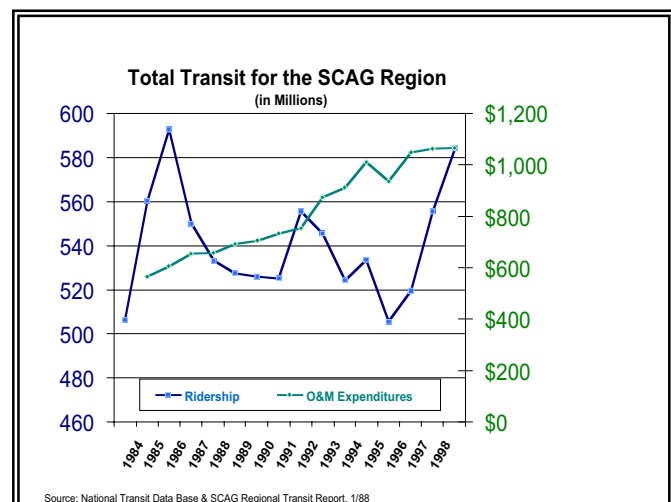
- SR 91 Express, Orange County
- SR 73 San Joaquin Hills Transportation Corridor, Orange County
- SR 241 Foothill/Eastern Transportation Corridor, Orange County

The average speed in a 24-hour period for the highway and arterial system is about 39 miles per hour (based on the model results for the baseyear 1997). Average bi-directional speed during the afternoon peak period on our freeways is about 55 miles per hour. However, the average morning peak period speed on the freeway system in the congested direction is less than 20 miles per hour. Furthermore, congestion on some of the heaviest corridors such as I-405, SR-91, I-5, US-101 and I-10 is far worse than what is characterized by the average system wide speed. In 1997, the average traveler spent approximately 17 percent of travel time in congestion delay. A 15-mile commute trip would take on the average about 30 minutes.

## Regional Transit

In Southern California, public transit service is comprised of local and express buses, urban rail that is centered in the core of Los Angeles County, commuter rail that spans all counties and shuttles/circulators that feed all transportation modes and activity centers. Transit service is provided by approximately 22 separate public agencies. Ten of these agencies provide 96 percent of the existing public bus transit service. Local service is supplemented by municipal lines and shuttle services. Private bus companies provide additional regional service. In 1997, ridership approached 550 million annual passengers. This upward trend can be credited to new urban rail system service expansions. Despite this trend, transit ridership for all trips accounted for only 2 percent of total trips and less than 4 percent of home-to-work trips.

**Figure 5.3**



Costs to provide transit service continue to grow exponentially, while transit ridership has not. LACMTA, which provides approximately 70 percent of the total trips for the region, continuously struggles to maintain low operating costs for public transit in Los Angeles County. In the fall of 2000, bus and rail operators went on strike for nearly six weeks, leaving Los Angeles County with very limited public transportation. Municipal bus operators expanded service to help provide the public with some means of commuting to and from

work. The strike ended in mid-October and resulted in an agreement that would help ensure the long-term financial viability of the LACMTA. Lack of financial viability continues to create a disincentive for additional investments in public transit.

### **Urban Rail**

LACMTA's urban rail lines operate seven days a week. During peak periods, trains are available every five minutes and off-peak, every twenty minutes. Existing urban rail lines are located in Los Angeles County, including the Blue Line from Long Beach to Downtown and the Green Line from El Segundo to Norwalk and the Red Line subway, which as of mid 2000, terminates in North Hollywood. Ridership on the Red, Green and Blue Lines exceeded 34 million annual passenger trips in 1997.

### **Commuter Rail**

Commuter rail services are operated by the Southern California Regional Rail Authority (SCRRA). In October of 1992, the SCRRA began initial operation of the Metrolink commuter rail system consisting of three lines. Service on the initial system was greatly expanded following the 1994 Northridge earthquake. Currently, SCRRA operates 6 lines with an approximate weekday ridership of 31,000 trips. Additionally, Amtrak provides inter-city service, principally between San Diego and San Luis Obispo.

### **Shuttles and Circulators**

When SCAG's Regional Council adopted the 1998 RTP, staff was directed to work with transit providers to determine how to best meet the objectives identified in the plan. The plan proposed that substantial service improvements and significant cost reductions could be achieved by implementing regional "Smart Shuttle" services (on-demand service supported by technology enhancements). The RTP projected that the 20-year savings from Smart Shuttle services and other transit system changes could be as high as \$2.65 billion.

Upon review of the Smart Shuttle progress to date, a significant promise that innovative services can increase the transit mode split can be seen. However, the assumptions of the 1998 RTP were over estimated and the "third tier" transit goals have been scaled back and adjusted for the 2001 RTP Update.

Service, such as DASH, Pasadena ARTS, Glendale Bee Line, Cerritos on Wheels, El Monte Transit, and a host of local Dial-a-ride operations and Smart Shuttle demonstrations represent the implementation of third tier transit services. Cities within Los Angeles County fund services through local transportation sales tax returns, but cities in other counties lack this funding source. [Exhibit 5.2](#) depicts existing fixed grade transit corridors in the region.





## 2000 Commuter Rail, Urban Rail, and Rapid Bus System

- Port
- Port of Entry
- Airport / Potential Airport Site

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- ~ Rapid Bus
- ~ Light Rail
- ~ Heavy Rail

- ~ Commuter Rail
  - ~ Metropolitan Transportation System
- Note: Due to scale, local and express bus service, vanpools, and other transit service are not included on this map.

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Exhibit 5.2



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## ***Marine Ports***

Southern California is served by three major seaports that are responsible for providing a major link between the West Coast of the United States and the Pacific Rim countries. These ports - Hueneme, Long Beach and Los Angeles - serve over 80 ocean carriers, the two major railroads and almost every trucking company in Southern California. The port of Hueneme, with its recent expansion, ranks as one of the premier automobile and agricultural product handling facilities in California. The Ports of Long Beach and Los Angeles are full-service ports with facilities for marine containers, autos and various bulk cargo. With an extensive landside transportation network, these three ports moved more than 120 million tons of cargo in 1995.

In particular, the San Pedro Bay Ports (Long Beach and Los Angeles) dominate the container trade in the Americas by shipping and receiving more than 5 million containers annually. Together, these two ports rank third behind Rotterdam and Hong Kong in world sea trade.

## ***Rail Freight and Trucking***

The SCAG region is served by two main line railroads - the Burlington Northern and Santa Fe Railway Co. (BNSF) and the Union Pacific Railroad (UP). These railroads link Southern California with other U.S. regions, Mexico and Canada either directly or via their connections with other railroads. They also provide freight rail service within California. In 1995, these railroads moved more than 91 million tons of cargo in and out of Southern California.

The SCAG region is also served by three short line or switching railroads:

- The Pacific Harbor Line (formerly the Harbor Belt Railroad), which handles all rail coordination involving the Ports of Los Angeles and Long Beach, including dispatching and local switching in the harbor area.
- The Los Angeles Junction Railway Company, owned by BNSF, which provides switching service in the Vernon area for both the BNSF and UP.
- The Ventura County Railroad, owned by Rail America, Inc., which serves the Port of Hueneme and connects with the UP in Oxnard.

These railroads perform specific local functions and serve as feeder lines to the trunk line railroads for moving goods to and from Southern California.

The two main line railroads also maintain and serve major facilities in the SCAG region. Intermodal facilities are located in Commerce (BNSF), East Los Angeles (UP), San Bernardino (BNSF) and Carson near the San Pedro Bay Ports (UP) and provide on-dock and near dock container transfer from the Ports of Los Angeles (UP/BNSF) and Long Beach (UP/BNSF) as well as transfer of domestic truck trailers onto trains. Major classification yards are located in Barstow (BNSF), East Los Angeles (UP), Commerce (BNSF), Industry



(UP) and West Colton (UP) and auto loading facilities are found in Ontario (UP) and San Bernardino (BNSF).

The trucking industry, including common carrier, private carrier, contract carrier, drayage and owner-operator services, handles both line-haul and pick-up and delivery. In addition to using the public highway system for over-the-road and local service, the industry is served by a considerable infrastructure of its own. This includes truck terminals, warehousing, consolidation and trans-loading facilities, freight forwarders, truck stops and maintenance facilities. These facilities are especially concentrated in the South Bay and Gateway Cities areas including Wilmington and Carson and extending generally between LAX and the San Pedro Bay ports, along the 710 Corridor north to Vernon, Commerce and downtown Los Angeles, east through the San Gabriel Valley to Industry, Pomona and Ontario and thence to the Inland Empire in Fontana and Rialto. Truck related facilities are also located in Glendale, Burbank and Bakersfield. Specialized facilities for trucking that provide air cargo ground transport are located around regional airport facilities, notably LAX and Ontario.

### ***Regional Aviation System***

The SCAG region has 65 airports, including six commercial service airports, 45 general aviation, 11 existing or recently closed military air bases, two limited commercial service airports and one joint-use facility. Six commercial service airports handle the majority of passenger air traffic: Burbank, John Wayne/Orange County, Long Beach, Los Angeles International, Ontario International and Palm Springs. Limited commercial service exists at Oxnard and Imperial County airports.

In all, some 80 million annual passengers (MAP) were served in the region in 1997, double the number served in 1980. The level of air passenger demand is forecast to more than double again before 2025. While none of the individual airports is the largest in the U.S., the region's airports taken together make Southern California the busiest of all regions in the country.

Air cargo is the fastest growing method of transporting goods in and out of the region and is expected to continue to increase faster than passenger demand. Los Angeles International and Ontario International are the major cargo hauling airports, handling about 96 percent of all regional air cargo, with LAX alone accounting for 78 percent of the traffic. The impact on ground transportation of freight movement to and from the airports is significant, but possible conversion of several military airports to commercial use may spread this burden more evenly.

To better meet the aviation needs forecasted for the region, the 1998 RTP developed various aviation policies, principles and action steps. In particular, Policy Nos. 8, 18, 19 and 20 in the 98 RTP pertained to aviation.

## ***Transportation Demand Management (TDM)***

Transportation Demand Management (TDM) is the all-inclusive term given to a variety of measures used to improve the efficiency of the existing transportation system by managing travel demand. Travel behavior may be influenced by mode, reliability, frequency, route, time and costs, support programs/facilities and education. TDM strategies encourage the use of alternatives to the single occupant vehicle such as carpools, vanpools, bus, rail, bikes and walking. Alternative work hour programs such as compressed work week programs, flextime and telecommuting (teleworking) are also TDM strategies as are parking management tactics such as preferential parking for carpools and parking pricing.

### **Carpools**

Carpooling is currently the number one alternative to driving alone in the Los Angeles area. As of the 1990 Census, carpooling moved over three times more workers each workday than transit (1,057,051 vs. 310,616). Among the ten largest metropolitan areas in the country, according to the 1990 Nationwide Personal Transportation Study, the greater Los Angeles area has the highest carpooling rate in the nation. In addition, Los Angeles is the only major metropolitan area in the nation where carpooling has been maintaining its relative market share.

### **Jitney Service**

The 1998 RTP assumed the use of smart shuttles, local circulators and jitney services to replace existing less efficient bus routes. A jitney service can best be described as an on-demand personal transit service. This type of service is common in Middle Eastern, Asian, African and South American cities where bus or rail alternatives are impractical or non-existent.

In the SCAG region, a number of demonstration projects have produced mixed results as to the viability of personal transit services. The demonstration projects indicate that there is a niche market potential for jitney type services in certain neighborhood areas, special attractors and at regional attractors such as large employment and commercial-retail centers.

In Southern California cities, some form of limited jitney services appear to exist. These take the form of “bandit cabs”. What is known about these services is that they are neighborhood oriented, family operated and currently provide service to people that can not use existing public transit or commercial taxi/van services. Little operational information is available on these services primarily because they are “invisible under the existing regulatory environment” and that a large percentage of the operators may be illegal immigrants.

Implementation of this type of service is not without barriers consisting of:

- state laws & local ordinances
- institutional relationships
- regulatory requirements
- safety issues



Currently jitney and shuttle type services are opposed by existing transit providers, both public and private. These services do not easily conform to local ordinances and state laws, the existing regulatory environment (local and PUC) and licensing requirements (drivers, insurance, etc.).

A full evaluation of jitney type service(s) will be conducted in the next calendar year when funding is available.

### **Vanpools**

There are approximately 2,000 vanpools currently operating in the region. While vanpooling is the mode choice for a small portion of the commuting population, the vehicle miles traveled reduced is significant given the long trip distances vanpools travel (35 miles average one-way trip distance) and the length of time members remain in their vanpool arrangement (average of 28 months). Vanpool programs are primarily operated by the private sector thereby utilizing minimum subsidy.

### **Advanced Traveler Information Systems (ATIS)**

Advanced Traveler Information Systems (ATIS) provide household and business customers with information that they can use 24 hours a day to make current and future decisions regarding the most favorable means, route and time for work, recreational and other trips. For the immediate and future trip, the traveler can obtain up-to-the-minute information on freeway, tollway and street congestion; times and speeds for alternate trip origins and destinations; and shuttle, bus, rail, plane and ship schedules, connections and costs. In addition, information is available on traffic accidents, incidents, alternative routes and weather.

This information can be obtained in many ways: radio and television, specific traveler information telephone numbers, the Internet, WEB, kiosks in convenient public and work locations and in-vehicle devices. Information is available in different forms – orally and visually, in text, tables and maps.

Cities, counties, County Transportation Commissions, transit providers, subregional associations, Caltrans and private organizations are working together to develop data collection systems to process the data through public and private transportation management centers, and to deliver the information to travelers.

Through the Traveler Advisory News Network (TANN), the Southern California Economic Partnership (Partnership) currently provides “real time” traffic information as part of the Orange County Model Deployment, a current Partnership demonstration project for ATIS. The system also provides data on traffic incidents, transit schedules, and itinerary planning. Through TANN affiliates, this data is available to digital communications “palm” devices, pagers and in-vehicle devices, as well as through internet/intranet connections.

While the potential benefit of a well thought out ATIS system is obvious, much needs to be done to develop ATIS to reach travelers with information about alternatives before they make their mode choices.

### **Telecommuting**

The Draft 2001 RTP Update assumes that 2.7 percent of all commuters telecommute from their home-to-work trips for both 2010 and 2025 plans. Based on SCAG's State of the Commute Study, the rate of telecommuting has remained fairly constant hovering at around 2 percent of all work trips. Yet, based on census data, work-at-home doubled between 1980 and 1990. While there is no empirical evidence that this growth rate can be sustained into the future, it is reasonable to assume moderate future increases in work-at-home as well as telecommuting due to the infusion of technology into the workplace and the ease of communicating and working at nearly any location.

### **Alternative Work Schedules**

Alternative work schedules enable commuters to flex their hours at the workplace to avoid peak travel time periods. In addition, commuters who opt to participate in a compressed work week schedule help to alleviate peak hour congestion by not reporting to the workplace on the days that they are off work.

Awareness of alternative work schedules (4/40, 9/80 and 3/36 schedules) by workers has remained fairly consistent throughout the 1990s. However, since 1994, participation in these programs has fallen by more than half. Participation by employees at sites with fewer than 200 employees are especially low.

### **TDM Support Facilities/Programs**

TDM support facilities/programs are essential components of the TDM strategies. The following paragraphs describe some of the key elements of these components.

#### ***Park and Ride Facilities***

Park-and-ride facilities are an essential component of the transportation system. Their objective is to provide a safe and convenient location for commuters to switch from single occupant vehicles to high occupancy modes such as bus, rail, carpools and vanpools.

The region's park-and-ride system allows many commuters to park on a daily basis at designated hub locations and to transfer to express bus services or in many cases, to vanpools and carpools. Notably, the daily use of the system varies tremendously across the region, with some lots operating at over 100 percent capacity while others are less than 10 percent full. These drastic variations in use are due, in part, to deferred or substandard maintenance practices, lack of security and a simple lack of marketing to inform commuters of facility locations, restrictions and services. Addressing these issues

is essential if the Region's park and ride system is to reach its maximum potential and continue to be an integral part of the region's transportation infrastructure.

### ***HOV Lanes Education and Public Outreach***

Significant investments have been made in developing our regional HOV lanes system. However, much can be done to educate the public on how to use it. Moving individuals out of single occupancy vehicles requires a significant behavior change. It takes a long-term commitment involving interagency coordination and actions by public and private organizations, including the media.

### ***Non-Motorized Transportation***

Biking and walking primarily constitutes non-motorized transportation. Bikeways and pedestrian paths can play a significant role in meeting the transportation needs of our region. Particularly, non-motorized transportation plays a bigger role in the densely populated, mixed land use area or corridors.

The region's bikeways encourage non-motorized commutes, serve as recreational facilities, and provide inexpensive, environmentally-friendly transportation opportunities. More than 1,000 miles of Class I and II bikeways exist through the region, as well as mountain bike trails, which are also designated for hiking and horseback riding. Class I bikeway has a right-of-way completely separated from any street or highway for bicycle travel. Class II bikeway has a striped lane for one-way bicycle travel on a street or highway. The City of Los Angeles alone has more than 500 miles of Class I and II bikeways.

According to the 1990 Census, biking and walking accounted for approximately 0.7 and 3.0 percent of total work trips respectively. SCAG's State of the Commute Report indicates that biking and walking have hovered around 0.5 and 1.5 percent respectively in the 1990s.

## Strategic Investments

It is clear that the opportunities to expand our transportation system to keep in pace with the projected growth is limited. While the population and employment are expected to grow by more than 40 percent and vehicle miles traveled (VMT) by more than 55 percent by the year 2025, our transportation network in terms of lane and route miles, on the other hand, is expected to increase by less than 10 percent. The constraints, both financial and environmental, to expanding our system capacity are substantial. Given this reality, the basic strategy used for investment in our transportation system can be summed up in the following guiding principles.

- Target capital improvement investments in projects that have the potential to maximize system capacity based on performance.
- Allocate adequate spending to operating and maintaining the system so that the system can continue to function effectively and efficiently.
- Optimize the utilization of the available system by promoting demand management strategies and other trip reduction strategies.

The individual components of the transportation plan described in the following section has been developed on this overall strategy. A complete list of projects proposed for investment is provided separately as an integral part of this document. The following paragraphs briefly describe investment strategies by mode.

### *Highways and Arterials*

If we were to do nothing beyond completing committed (baseline) projects by the year 2025, our freeway network mixed-flow lane capacity would increase by less than 10 percent and the arterial system will increase by about 5 percent (see [Exhibit 5.3](#) for regionally-significant Baseline projects). On the other hand, the HOV lane network will double in terms of lane miles by 2025 thereby signifying the need to coordinate the Transportation Demand Management (TDM) strategies to ensure maximum utilization of our HOV system.

Under the baseline scenario we could experience an increase in congestion delay, as a region, by almost 200 percent by the year 2025. The average speed on our freeway system, in the congested direction during the morning peak period, could deteriorate to about 16 miles per hour. The aggregated daily vehicle hours spent in the region could more than double to about 16.5 million hours and the delay hours could increase by more than 3.5 times. A 15-mile commute trip could take, on the average, about 55 minutes compared to 30 minutes in 1997. The most congested corridors, such as the I-405, SR-91, I-5, US-101 and I-10 through the urban region, will continue to get worse. The overall investment target is to provide maximum relief to the most heavily traveled commuter corridors.





## 2025 Regionally Significant Baseline Projects

- Port
- Airport / Potential Airport Site
- Port of Entry

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- HOV Connector
- New Interchange
- Mixed Flow
- Auxiliary
- Truck Climbing
- Toll
- Transit Corridor
- Alameda Corridor
- Alameda Corridor East
- Metropolitan Transportation System



Exhibit 5.3

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## 2025 Baseline Freeway Congestion

- Port
- Port of Entry
- Airport / Potential Airport Site

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Draft 2001 RTP Update

### Congestion Delay (AM Peak Period)

- 0.0% - 25%
- 25% - 50%
- 50% - 75%
- 75% - 100%
- MTS

11/01/00



Exhibit 5.4

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## Recommended Highway and Arterial Investments

The 1998 RTP contained over \$9 billion in highway and arterial improvement projects in addition to already committed or programmed projects. This figure included all capital improvements proposed on the highway and arterial network, including mixed flow lanes, HOV lanes, interchanges, truck climbing lanes, truck lanes and grade crossings. In the absence of a separate task force, the RTP Technical Advisory Committee (TAC) has guided the development of this component of the RTP.

Preliminary estimates indicate that additional arterial improvement needs total more than \$50 billion, in addition to the projects that are already identified in the 1998 RTP. This unconstrained list is far beyond the available public funds in the region over the plan's time frame. Arterial and interchange improvements in addition to those included in the baseline will be eligible for programming when future funding becomes available and are subject to their performance relative to SCAG's performance indicators. The ultimate financially constrained draft plan proposes \$4.0 billion in new expenditures for arterials based on performance in addition to specific arterial improvement projects identified as part of the constrained plan.

The highway projects identified in the Governor's Traffic Congestion Relief Plan (TCRP) can be viewed mostly as capacity enhancement projects. These projects are included as part of the baseline for the Draft 2001 RTP Update. The Governor's plan devotes \$765 million to highway-related projects, about 34 percent of the total spending proposed. The most notable of these are HOV gap closures on Interstates 405, 110, 5 and 215 as well as State Routes 91, 60 and 22. All of these projects are identified in the 1998 RTP as either baseline or constrained plan projects. Mixed flow, auxiliary lane, interchange improvement and signal improvement projects are also proposed in the TCRP and are consistent with the 1998 RTP.

Strategic capacity improvements can be combined with improved management of the regional freeway system and peak period travel demand reduction strategies to effectively meet the region's travel needs. The region needs additional innovative capacity enhancements, but as always, innovations must meet a benefit-cost test.

Major categories of the proposed improvements for Highway and Arterials in the Draft 2001 RTP Update include HOV gap closures, HOV connectors, mixed flow improvements, toll lanes and high Occupancy toll lanes as well as strategic arterial improvements. The Draft 2001 RTP Update is based on input from the 1998 RTP, and priorities submitted by the county commissions and the subregions. The following provides a brief description of individual categories of improvements proposed in the Draft Plan.



## 2025 Draft Plan Highway and Corridor Projects

- Port
- Port of Entry
- Airport / Potential Airport Site

The SCAG Region  
Draft 2001 RTP Update

### Highway and Corridor Projects

- HOV Connector
- Toll Connector Ramps
- HOV
- Mixed Flow
- Auxiliary
- Toll Lane
- Corridor (Alignment To Be Determined)
- Metropolitan Transportation System

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Exhibit 5.5

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### HOV Gap Closure

The completion of the HOV system will be an important step towards meeting future travel demand. A number of HOV projects proposed in the 1998 RTP have already been programmed in the current RTIP. The following table provides a summary of HOV gap closure projects proposed in the Draft 2001 RTP beyond the baseline that are regionally significant.

**Table 5.4**

HOV Projects			
	Proposed Implementation Schedule	Jurisdiction	Project Development Requirement/Status
SR-14 (Ave P-8 to Ave-L)	2015	Los Angeles	PSR Needed
I-710 (I-10 to I-210)	2020	Los Angeles	PSR Needed
I-5 (SR-19 to I-710)	2010	Los Angeles	PSR Needed
I-5 (SR-1 to Avenida Pico)	2020	Orange	PSR Needed
I-15 (San Bernardino Co to SR-91)	2025	Riverside	PSR Needed
I-215 (San Bernardino Co to SR-60/I-215/SR-91)	2025	Riverside	PSR Needed
I-215 (I-15 to s/o Nuevo)	2025	Riverside	PSR Needed
I-215 (East Jct SR-60/I-215 to Ramona Exwy)	2025	Riverside	PSR Needed
SR-71 (San Bernardino Co to SR-60)	2015	Riverside	PSR Needed
I-10 (I-15 to Riverside Co)	2025	San Bernardino	PSR Needed
I-215 (Riverside Co to I-10)	2010	San Bernardino	PSR Needed
I-215 (SR-30 to I-15)	2025	San Bernardino	PSR Needed
I-15 (Riverside Co to D St)	2025	San Bernardino	PSR Needed
Note: Typically, Project Study Reports (PSR) must be completed for these projects in order to compete in the call for projects for the RTIP.			

The total investment proposed for HOV completion is \$2.2 Billion. The baseline projects are listed only in the Appendix.

### HOV Connectors

HOV connectors are an important element of the regional HOV system. The connectors are constructed with drop ramps to the HOV lane along the freeway median to minimize weaving conflicts and maintain speeds. A number of HOV connectors are identified in the 2025 Baseline. The 1998 RTP identified two additional HOV freeway-to-freeway connector projects. While the cost effectiveness of HOV connectors appear questionable on a project by project basis, some investments in HOV connectors are justified by overall system performance. Most of the proposed HOV connectors are located in Orange County and a few are located in San Bernardino County. The following table provides a summary of HOV

connector projects identified in the proposed Draft 2001 RTP Update as part of the constrained projects beyond the baseline.

**Table 5.5**

<b>HOV Connector Projects</b>			
	<b>Proposed Implementation Schedule</b>	<i>Jurisdiction</i>	<b>Project Development Requirement/Status</b>
SR-22 / I-5	2025	Orange	PSR Needed
SR-22 / SR-55	2025	Orange	PSR Needed
SR-22 / I-405	2010	Orange	PSR Needed
I-405 / I-605	2010	Orange	PSR Needed
I-10 / I-215	2025	San Bernardino	PSR Needed
I-10 / I-15	2025	San Bernardino	PSR Needed

The total investment proposed for HOV connectors is \$310 Million. The baseline projects are listed only in the Appendix.

### **Mixed Flow**

Gaps in the freeway network create traffic bottlenecks during peak use. Several new mixed flow freeway lanes are proposed to close gaps, increase capacity in certain congested commuter corridors and address county-to-county travel, especially from population-rich to employment-rich areas. Several routes are under consideration in the Four Corners area, where Los Angeles, Orange, Riverside and San Bernardino counties converge. SCAG, Caltrans, and Riverside and Orange counties are exploring methods to approach new corridor development in an environmentally sensitive manner. Most of these projects are proposed for inclusion in the 2001 Draft RTP Update. Regionally significant mixed flow improvements, proposed in the Draft 2001 RTP Update beyond the baseline projects, are shown in the following table.

**Table 5.6**

<b>Mixed Flow Projects</b>			
	<b>Proposed Implementation Schedule</b>	<b>Jurisdiction</b>	<b>Project Development Requirement/Status</b>
SR-111 (SR-98 to I-8)	2010	Imperial	PSR Needed
I-710 (I-10 to I-210)	2020	Los Angeles	PSR Needed
I-5 (Rosecrans to Orange Co)	2010	Los Angeles	PSR Needed
I-405 (US-101 to I-105)	2020	Los Angeles	PSR Needed
SR-57 (SR-60 to Orange Co)	2020	Los Angeles	PSR Needed
I-5 (SR-91 to Los Angeles Co)	2010	Orange	PSR Needed
SR-91 (westbound auxiliary lane SR-57 to I-5)	2020	Orange	PSR Needed
SR-91 (auxiliary lanes SR-241 to SR-71)	2025	Orange	PSR Needed
SR-57 (auxiliary lanes Los Angeles Co to SR-91)	2010	Orange	PSR Needed
I-215 (I-15 to s/o Nuevo)	2025	Riverside	PSR Needed
<b>Mixed Flow Projects (cont'd)</b>			
	<b>Proposed</b>	<b>Jurisdiction</b>	<b>Project</b>

	Implementation Schedule		Development Requirement/Status
SR-71 (San Bernardino Co to SR-91)	2015	Riverside	PSR Needed
I-215 (Eucalyptus to Columbia)	2025	Riverside	PSR Needed
I-10 (Monterey to Dillon)	2010	Riverside	PSR Needed
I-10 (SR-38 to Yucaipa)	2010	San Bernardino	PSR Needed
I-215 (SR-30 to I-15)	2025	San Bernardino	PSR Needed
SR-30 (Highland to I-10)	2020	San Bernardino	PSR Needed
SR-58 (Kern Co to I-15)	2010	San Bernardino	PSR Needed
US-395 (I-15 to n/o Desert Flower Rd)	2020	San Bernardino	PSR Needed
SR-118 (SR-23 to SR-126)	2015	Ventura	PSR Needed
SR-34 (Oxnard to SR-118)	2020	Ventura	PSR Needed

The total investment proposed for mixed flow improvements is \$6.6 Billion including new corridors. The baseline projects are listed only in the Appendix.

### ***Toll Lanes and HOT Lanes***

Proposed new HOT lane facilities include expanded capacity on SR-91 and 71 to address north/south and east/west congestion in the Riverside-Orange County area. The existing toll lanes on SR- 91 are proposed for extension eastward to I-15, mitigating some of the heaviest peak period congestion in the region.

Potential HOT lanes could be developed along Orange/Riverside County corridor and San Bernardino/Riverside corridor. The precise alignment for these corridors are being developed through the CETAP process.

**Table 5.7**

Toll Lane Projects			
	Proposed Implementation Schedule	Jurisdiction	Project Development Requirement/Status
SR-91 (SR-241 to Riverside Co)	2020	Orange	PSR Needed
SR-91 (Orange Co to I-15)	2020	Riverside	PSR Needed

\$2.06 Billion in private funding is proposed for Toll Lane Projects. The baseline projects are listed only in the Appendix.

### ***Strategic Arterial Improvements/Smart Street Improvements***

Arterial roads account for over 65 percent of the total road network and already carry over 50 percent of total traffic. As it becomes more difficult to add lanes to existing freeways or build new freeways, maximizing the potential capacity of arterials becomes an attractive option to increase overall system capacity in already-developed areas. The Strategic Arterial Improvement concept could involve a combination of widening, signal prioritization and other Intelligent Transportation Systems (ITS) deployment and grade separation at critically high-volume intersections to enhance the flow speed and capacity of the arterial. Such improvements could increase capacity of an arterial facility by as much as 50 percent at a

relatively modest cost of \$3 to \$5 million per mile. A number of arterial corridors have been identified for such improvements in the proposed plan, located mostly in Orange and Riverside counties. The following table provides a list of Smart Street Improvements proposed in the Draft 2001 RTP Update beyond the baseline.

**Table 5.8**

<b>Strategic Arterial Improvements / Smart Street Projects</b>			
	<b>Proposed Implementation Schedule</b>	<i>Jurisdiction</i>	<b>Project Development Requirement/Status</b>
SR-133 Laguna Canyon Rd	2010	Orange	Feasibility Study Needed
Adams Ave	2010	Orange	Feasibility Study Needed
Bolsa Ave/First St	2010	Orange	Feasibility Study Needed
Crown Valley Pkwy	2010	Orange	Feasibility Study Needed
El Toro Rd	2010	Orange	Feasibility Study Needed
Harbor Blvd	2010	Orange	Feasibility Study Needed
Irvine Blvd/Trabuco Rd	2010	Orange	Feasibility Study Needed
Jamboree Rd	2010	Orange	Feasibility Study Needed
Newport Blvd	2010	Orange	Feasibility Study Needed
Orangethorpe Ave	2010	Orange	Feasibility Study Needed
Pacific Coast Hwy	2010	Orange	Feasibility Study Needed
Tustin Ave/Rose Dr	2010	Orange	Feasibility Study Needed
Valley View St	2010	Orange	Feasibility Study Needed
Warner Ave	2010	Orange	Feasibility Study Needed
Hamner Ave/Main St	2015	Riverside	Feasibility Study Needed
Limonite Ave/Rubidoux Blvd	2020	Riverside	Feasibility Study Needed
Magnolia Ave/Main St	2015	Riverside	Feasibility Study Needed
Van Buren Blvd/Mockinbird Cyn Rd	2015	Riverside	Feasibility Study Needed

The total investment proposed for Smart Street improvements is \$480 Million.

### **Arterial Improvements**

In addition to the specific arterial improvements identified under the Smart Street Improvement Program, this plan proposes a significant increase in funding for arterial improvements and capacity enhancements (see [Table 5.9](#)). Even with the increased funding, the total cost of the arterial improvements identified by the subregions far exceeds available funds.

A complete list of eligible arterial improvements is contained in the Appendix. For implementation purposes, the implementing agencies will have the discretion to prioritize arterial improvements from this list based on performance criteria, to the extent that the allocated funding is available. For the purposes of evaluating the performance of the Draft 2001 RTP Update as a constrained multi-modal system, arterial improvements were used within the available funding capacity as identified in the plan.

**Table 5.9**

<b>Investment in Arterials</b>	
<b>County</b>	<b>Investment</b>
Imperial	\$ 194,000,000
Los Angeles	\$ 1,400,000,000
Orange	\$ 565,000,000
Riverside	\$ 424,000,000
San Bernardino	\$ 607,000,000
Ventura	\$ 275,000,000
Regional Total	\$ 3,465,000,000



### ***Maintaining and Optimizing the Existing System (Operations and Maintenance)***

With the current backlog of highway and arterial maintenance and the pavement deterioration that goes with an aging roadway system, costs will increase dramatically through the RTP horizon year to keep the highway system operational. The proposed Draft 2001 RTP Update identifies additional funds, principally for arterials, to minimize roadway and bridge decay. Recent studies have also identified an increased cost to drivers as under-maintained roadways degrade tires and shock absorbers, creating wear and tear on engines and connections throughout a vehicle. Providing additional funding to improve pavement conditions before roadbed deterioration requires full rehabilitation and would result in substantial maintenance savings to the region. Preliminary analysis indicates that investment in proper ongoing maintenance would pay dividends of more than triple the cost. The funding estimates for this Draft 2001 RTP Update call for a \$63.7 billion investment in operations and maintenance of the existing system (including transit) and the baseline projects, which is a \$25.3 billion increase over the 1998 RTP. Additional O&M funding, beyond maintaining the existing system proposed in the plan, could also include significant improvements such as signal replacements and upgrades, traffic detection improvements, integration and computer control of signal systems, optimization of turning movements, and other means of maintaining or enhancing operations of the existing system, as prioritized by the implementing agencies. Proposed additional O&M funding is summarized by each county in the following table.

**Table 5.10**

<b>Investment in Highway/Arterial O&amp;M</b>	
<b>County</b>	<b>Investment</b>
Imperial	\$ 50,000,000
Los Angeles	\$ 250,000,000
Orange	\$ 189,000,000
Riverside	\$ 210,000,000
San Bernardino	\$ 114,000,000
Ventura	\$ 150,000,000
<b>Regional Total</b>	<b>\$ 963,000,000</b>
Note: The proposed O&M allocation is in addition to the baseline O&M expenditure. See Appendix for baseline O&M expenditures.	

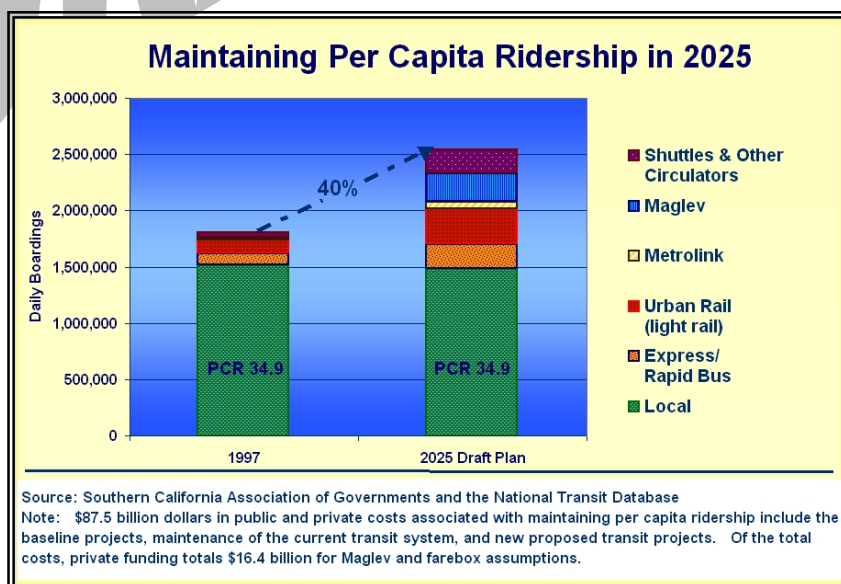
## Regional Transit

The primary focus of the 1998 RTP's transit program was the cost and delivery of bus service. Smart Shuttles were seen as the solution to these cost/delivery issues, but has since been recognized that these estimates were overly optimized and applications somewhat limited. However, several fundamental transit policy questions warrant further research and analysis:

- How should this region continue to fund transit services?
- Should the primary focus of regional transit be to provide a "social safety net" level of service?
- Would other transit investment strategies be more cost-effective and provide better service quality?
- Should these strategies be pursued if implementation would require changing the way transit funding is allocated and/or require significant changes to the existing institutional structures that fund, deliver and operate transit services?
- Should the Southern California region adopt a single alternative fuel standard for transit vehicles?

SCAG's Transportation and Communications Committee (TCC) was presented with ridership scenarios developed by the Regional Transit Task Force that would either work towards doubling transit ridership or maintaining the 1997 per capita ridership level. TCC adopted, as a goal, to maintain 1997 per capita ridership levels for the Draft 2001 Plan Update. This equates to 34.9 trips per person per year. The SCAG region's population is projected to increase by 40 percent by 2025. This would equal approximately 800 million new annual transit trips in the region (see Figure 5.4)

**Figure 5.4**



To implement the recommended per capita maintenance scenario, approximately 8,000 transit vehicles would need to be purchased over the plan period. The Task Force realized, however, that increasing the regional transit fleet alone, will not work, is not cost effective and would not improve overall performance in and of itself. Transit enhancement actions, in coordination with growth and development, will improve both system performance and person access. Implementation of these complementary actions on selected transit corridors, adopted by the Transit Corridor Task Force, could significantly increase regional transit ridership. In some cases, these enhancements alone could be implemented for little or no cost (capital or operating) and improve transit service capacity by as much as 15 percent. Current examples can be found on the Wilshire and Ventura Boulevard Rapid Bus demonstration projects. During July 2000, as a result of new rapid bus routes, Metro Bus ridership reached its highest point in more than six years averaging 1,253,931 boarding patrons, compared to 1,041,045 carried a year earlier.

### **Recommended Regional Transit Investments**

Public transportation services can comprise a major portion of the Regional Mobility Strategy. The goal of public transportation services is to provide an attractive alternative to the use of a single occupant automobile for discretionary riders and to provide needed transportation to people who do not own or operate a car. Public transportation strategies and programs have been developed with these goals in mind.

With the projects proposed Governor's plan, as well as the Draft 2001 RTP Update, the maintenance of the 1997 per capita ridership goal can be achieved (see [Tables 5.10 and 5.11](#)). Several strategies will pave the way over the plan period. One such strategy includes a significant increase in service availability. Daily boardings will double with the implementation of Metrolink's Long-Range Capital Plan. New rapid bus lines will be implemented on heavily traveled corridors and many bus lines will feed into the existing and proposed urban and commuter rail system.

The proposed financially constrained Rapid Bus corridors are designed to connect major activity centers and create a multi-model system that serves Southern California residents. Several corridors link current bus routes to existing Metrolink stations and urban rail lines. Rapid Bus service consists of a simple route layout, frequent service, less frequent stops, low-level buses for fast boarding and exiting, color-coded buses and stop as well as bus priority at intersections. Service for these corridors in 2025 will be every 3 to 5 minutes during peak periods and every 10 minutes during off-peak periods and weekends. Financially constrained corridors 1-8, listed in [Table 5.12](#), are part of the LACMTA Phase II Metro Rapid Bus Program. In addition to the re-routing of bus lines, the deployment of shuttles and circulators would also feed into the current transit system. These circulators can be very effective when deployed in certain niche markets.

**Table 5. 11**

<b>2025 Baseline Transit Corridors</b>			
<b>Corridor Title</b>	<b>Mode Chosen</b>	<b>Origin</b>	<b>Destination</b>
Eastside	Light Rail	Union Station	Atlantic Blvd. at Beverly Blvd.
Exposition	Busway / Light Rail (mode undecided)	Blue Line at Grand & Washington	Ocean at Colorado
Pasadena Blue Line	Light Rail	Union Station	Sierra Madre
SF Valley	Busway	Oxnard at Canoga	Red Line at North Hollywood
Van Nuys	Rapid Bus	Foothill Blvd.	Ventura Blvd.
San Jacinto	Commuter Rail	12 <sup>th</sup> at Vine	W. 7 <sup>th</sup> at State St.
Redlands	Commuter Rail	4 <sup>th</sup> at Mt. Vernon	Grove at Central
To build and maintain the above corridor projects through 2025 is \$3.3 billion of the total \$65.2 billion baseline transit costs.			

Future studies are planned to examine new transit corridors and the feasibility of extending existing ones. The Eastside light rail corridor would terminate at Norwalk and Whittier Blvd. The Pasadena Blue Line would extend out to the Claremont Metrolink Station, located at Central and Arrow. In addition to these extensions, a study of the Pacific Electric right-of-way, which begins in down town Los Angeles and terminates in Santa Ana, would be conducted.

**Table 5. 12**

<b>2025 Proposed Transit Corridors</b>			
<b>Corridor Title</b>	<b>Mode Chosen</b>	<b>Origin</b>	<b>Destination</b>
Crenshaw Blvd.	Rapid Bus	Red Line at Hollywood and Vine	Crenshaw-Green Line
Atlantic Blvd.	Rapid Bus	Atlantic at Del Amo	Artesia at Long Beach Blue Line
Florence Ave.	Rapid Bus	La Tijera Blvd. at Manchester	Sierra Madre
Hawthorne Blvd.	Rapid Bus	Crenshaw at Florence	Red Line at North Hollywood
Santa Monica Blvd.	Rapid Bus	Union Station	Ventura Blvd
Vermont Ave.	Rapid Bus	Vermont at Hollywood Blvd.	Irvine

Table 5.12 cont'd

2025 Proposed Transit Corridors			
Corridor Title	Mode Chosen	Origin	Destination
San Diego Freeway	Rapid Bus	I-405 at Ventura Blvd.	W. 7 <sup>th</sup> at State St.
Roscoe Blvd.	Rapid Bus	Victory Blvd. at Topanga Canyon	Grove at Central
Centerline*	Light Rail	Fullerton	Irvine
Green Line Ext. – LAX	Light Rail	Mariposa at Nash	Century at Sepulveda (LAX Terminal)
Santa Paula Branch Line	Commuter Rail	Montalvo Station	Santa Clarita Metrolink Station
To build and maintain the above corridor projects through 2025 is \$3.5 billion of the total \$5.9 billion for all proposed transit projects. Note: *Engineering and planning funds for this corridor are in 2001 RTIP. A list of long range transit corridors may be found in the Appendix.			

Exhibit 5.6 depicts what the fixed transit corridor network would look like in the SCAG region in the year 2025.





## 2025 Proposed Transit Corridor System



The SCAG Region  
Draft 2001 RTP Update

### Transit



### Existing in 2000

1. Red Line
2. Blue Line
3. Green Line
4. Wilshire-Whittier
5. Ventura

### Baseline 2025

6. Centerline
7. Eastside LRT

### Draft Plan 2025

8. Exposition LRT
9. Pasadena Blue Line Ext
10. Redlands
11. San Fernando Valley
12. San Jacinto
13. Van Nuys
14. Atlanta

15. Crenshaw
16. Florence
17. Hawthorne
18. Roscoe
19. San Diego Fwy
20. Santa Monica
21. Vermont
22. Green Line Ext
23. Colton/Indio Amtrak
24. Santa Paula

11/02, 1/12/08

### Exhibit 5.6



Southern California Association of Governments  
December 2000



### ***Commuter Rail***

SCRRA has developed a \$1.1 billion dollar long-range capital improvement plan that when fully implemented will effectively double the Metrolink System's passenger carrying capacity. The long-range capital plan includes selective double tracking on critical route segments, switching and signal improvements, communication system improvements, new stations and enhancements to existing stations. Long term plans also include future service expansion on the Redlands, San Jacinto and Santa Paula branch lines. At this time, a specific mode has not been chosen, but these lines will feed into the current commuter rail system.

### ***Shuttles and Circulators***

Third tier transit services, including Smart Shuttles, community based transit system and new private services could potentially support an additional 20 percent of transit ridership above those levels currently modeled and validated.

Third tier systems currently operating appear to be carrying a significant volume of passengers. An analysis of third tier community-based transit systems is to be carried out by SCAG by the end of FY 2000/01. This may yield additional information pertaining to the likely effectiveness of such systems.

Technology will improve the performance and reliability of Smart Shuttles and community-based transit services. Enhanced customer awareness will also improve smart shuttle effectiveness and encourage more commuters to shift to third tier transit services. However, to increase service levels and institute new services in high growth areas, many of these services will require additional resources. This raises significant policy questions about whether and how such resources can be generated and allocated.

Over the last ten years, public transportation services provided by the private sector have grown significantly. These include a variety of market niche services (e.g. airports, Metrolink, livery, special needs services, urban rail stations) and contract services (e.g. employer shuttles, shopper shuttles, social services transportation and community-based transit). The market for these niche services is estimated to expand at least proportionally to the population and associated demographic changes over the next 25 years.

### ***Transit Centers***

Balanced local land use and transportation policies can reduce auto travel and support more pedestrian, mixed-use and transit-oriented developments throughout the region. Transit provides an alternative means of personal mobility, increases capacity when needed and contributes to the quality of life in metropolitan communities. Transit facilities, services and centers are best when they are customer-friendly, community-oriented and well designed. A network of transit-based centers and corridors, supported by in-fill development, maximizes the use of existing infrastructure, supports transit ridership, reduces automobile air pollution and preserves natural areas.

To further encourage the use of transit and ridesharing, new transit centers and park-n-ride facilities would be constructed in areas that provide access to the freeway HOV network, transit corridors and Express Bus origins. Existing transit centers may be upgraded for multi-modal uses that support restructured transit services. Possible investments, based on performance over the 2001 RTP Update period, are estimated to cost \$200 million.

### ***The Program***

Transit represents a vital component of our transportation network, regardless of the policy decisions and directions that are adopted. In order to remain so, transit operators must be able to develop and maintain services that attract and retain users.

Transit service development philosophy should focus on services that are:

- available for use when the customers want to use them
- accessible by customers without major obstacles (physical, institutional or informational)
- planned from the customer's point of view

Failure to meet the transit ridership goals set by the Regional Transit Task Force at least maintain current per capita ridership, would, over the life of the plan, add to increased congestion and further deterioration of air quality. More importantly, the viability of transit, as more than a social safety net, would be questioned, especially given the massive financial investments the region has made in transit.

The Regional Transit Task Force was convened to address the assumptions of the 1998 RTP and reevaluate regional transit. Their recommendations called for incremental goals, based on regional per capita ridership, which enhanced and restructured existing services. These actions, when implemented, will provide an attractive alternative to single occupancy vehicle trips and help achieve regional goals by reducing congestion and delays.

The Task Force identified actions to enhance transit service in several areas as follows:

#### **Transit Service Management Actions:**

- Transit schedule adherence needs attention. Buses should arrive within 5 minutes of the published time. Where this is not practical, realistic schedules should be published.
- Bus stops should be physically adequate to accommodate passenger access and egress, as well as minimize auto/bus conflicts (even if this means removal of parking) and should be free of pedestrian impediments.
- Regional transit vehicles should be equipped with Intelligent Transportation System (ITS) technology where this adds to on-time reliability and/or operating efficiencies.

- Bus priority service (transitway or rapid bus) should be implemented concurrently with smart street technology.
- On corridors or arterials that are used by multiple operators, operators should consider coordinated ticketing to enable “open door” policies.
- Transit corridor services should support the urban rail and commuter rail systems.
- Local transit services should be restructured or re-deployed to prioritize collector and distributor functions to support transit corridors and rail systems.
- Fare structures should be coordinated when possible to create a seamless regional transit network.
- User-side subsidies should be implemented where service-side is too expensive or impractical.

Transit Demand Management Actions:

- Differentiated transit fare (e.g. one-half fare off-peak) should be considered region-wide.
- Transfers should be free or eliminated entirely (pay on boarding).
- Employer-based incentives should be encouraged.
- Transit should be aggressively marketed where it offers a viable alternative to automobile use.

Growth Management Actions:

- Transit mitigation actions that are mandatory parts of the planning, permitting and zoning process. Proposed mitigation efforts shall include transit providers.
- Working with agencies that are able to create transit mitigation policies and enforce them, i.e. the California Environmental Quality Act could be amended to require new development to include transit mitigation that equal or exceed the area’s mode split.
- Encourage communities with transit supportive densities.

Institutional Actions:

- Transit providers should support the extension of existing supplemental sales taxes and development of revenue from market-based measures.
- Regional transit providers and municipal operators should be required to coordinate transit services and fare systems where jurisdictional boundaries are crossed.
- New or expanded service should be prioritized to support existing infrastructures.
- New or expanded service should be designed to meet operational objectives.
- Local transit investments should leverage federal funds to the greatest extent possible.